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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/554,219	08/14/2000	Kunio Ninomiya	43890-416	6492

7590 01/25/2005  
McDermott Will & Emery  
600 13th Street NW  
Washington, DC 20005-3096

EXAMINER
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NATNAEL, PAULOS M

ART UNIT	PAPER NUMBER
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2614

DATE MAILED: 01/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/554,219

Applicant(s)

NINOMIYA ET AL.

Examiner

Paulos M. Natnael

Art Unit

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 August 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2,3,5,6,8 and 11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2,3,5,8 and 11 is/are allowed.
- 6) ☒ Claim(s) 6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### DETAILED ACTION

1. The affidavit for Verification of translation (under rule 131 and 132) filed on 5/04/04 has been received.

#### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Yamada**, U.S. Pat. No. 6,192,091.

Considering claim 6, a digital broadcast demodulator for receiving digital broadcast by transmitting digital video and audio information coded by digital VSB modulation system in packet format,

a) wherein a differential value of synchronous signals of reception packet data is determined so as to detect a clock phase error of transmission data, and a clock signal is regenerated by phase control on the basis of the clock phase error, is met by the QAM demodulation system as illustrated in Figs 6 and 9, which generates phase-error signals (e) and (f).

Art Unit: 2614

(b) a subtracting circuit for subtracting the N-th input from the N+1th input of all reception data, is met by the subtractor 104, Fig.6, which subtracts a from b. (a-b).

(b) a circuit for outputting the subtraction input value obtained in the step above, only for the data coinciding with a code pattern of segment synchronous signal, is met by Sign Inversion circuit 107, fig.6, which processes (a-b) and (e) (phase error).

(d) a circuit for outputting the subtraction input value obtained in step (b) as a clock phase error signal only for the data positioned at the segment synchronous signal, is met by Gate 108, fig.6;

Except for;

e) wherein only the phase errors of a second symbol and a third symbol of said segment synchronous signal are outputted as said clock phase error;

Regarding e), Yamada does not specifically disclose outputting only the phase errors of a second symbol and a third symbol of the segment synchronous signal.

However, it would have been obvious matter of design choice to utilize the first, second third symbols or any other symbols, since Applicant has not disclosed that outputting only the phase errors of a second symbol and a third symbol of said segment synchronous signal solves any stated problem, and it appears that similar symbol numbers would perform equally well with the demodulator arrangement.

***Allowable Subject Matter***

4. Claims **2,3,5,8, and 11** are allowable over the prior art.
5. The following is a statement of reasons for the indication of allowable subject matter: the prior art fails to disclose a **demodulator**, being an apparatus for receiving digital broadcast by transmitting digital video and audio information coded by digital VSB modulation system in packet form, *comprising*, a circuit for establishing a synchronous signal in reception data based on a polarity of the most significant bit (MSB) of the reception transport packet data, wherein the circuit for establishing the synchronous signal in reception data comprises: a synchronous code pattern detecting circuit for detecting the segment synchronous code pattern from the most significant bit signal of the reception packet data, a symbol number counter for counting the number of symbol data in the reception packet data, a synchronous detection circuit for judging the true segment synchronous code pattern by obtaining the segment synchronous code pattern from said synchronous code pattern detecting circuit when said symbol number counter finishes counting of a specified number, and a synchronism detection protection counter for detecting and establishing the segment synchronous signal in the reception data from the output of said synchronous code pattern detecting circuit and count-up of specified number of said symbol number counter, as in claim **2**;

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paulos M. Natnael whose telephone number is (703) 305-0019. The examiner can normally be reached on 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (703) 305-4795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PMN  
December 28, 2004



**PAULOS M. NATNAEL  
PATENT EXAMINER**